

WHAT IS CLAIMED IS:

1. An endoscope imaging apparatus comprising:

an imaging unit arranged integrally by airtightly joining an imaging optical unit to an imaging element unit through a tubular member to which a bellows portion having an elastic force is formed, wherein:

the imaging optical unit contains at least one optical lens in a rigid member one end side of which is airtightly sealed;

the imaging element unit contains at least one imaging element in a rigid member one end side of which is airtightly sealed; and

the imaging optical unit and the imaging element unit airtightly joined to each other through the tubular member can change a distance or a relative inclination.

2. An endoscope imaging apparatus according to claim 1, further comprising:

adjustment means for performing at least one of the adjustment of optical axis distance between both the units, the adjustment of decentering of both the units with respect to an optical axis, or the adjustment of inclination of both the units with respect to the optical axis by elastically changing the bellows portion of the tubular member.

3. An endoscope imaging apparatus according to claim 2, wherein:

the adjustment means includes a screw portion.

4. An endoscope imaging apparatus according to claim 3, wherein:

the adjustment means is disposed on the imaging element unit side.

5. An endoscope imaging apparatus according to claim 3, wherein:

the adjustment means is disposed on the imaging optical unit side.

6. An endoscope imaging apparatus according to claim 1, wherein:

the tubular member to which the bellows portion is formed is disposed to any one of the frame members constituting the imaging element unit or the imaging optical unit integrally therewith.

7. An endoscope imaging apparatus comprising:

an imaging unit,

wherein the imaging unit comprising:

an imaging optical unit as a tubular member one end side of which is airtightly sealed, that is, a first rigid member containing at least one optical lens in the inside thereof;

an imaging element unit as a tubular member one end side of which is airtightly sealed, that is, a second rigid member containing at least one imaging element in the inside thereof; and

a tubular member airtightly joined to the imaging optical unit and the imaging element unit, respectively and capable of being deformed by including a bellows portion having an elastic force and of securing airtightness.

8. An endoscope imaging apparatus according to claim 6, further comprising:

adjustment means for performing the adjustment of at least one of the optical axis distance and the relative inclination of the imaging optical unit and the imaging element unit by elastically deforming the bellows portion of the tubular member.

9. An endoscope imaging apparatus according to claim 8, wherein:

the adjustment means includes a screw portion.

10. An endoscope imaging apparatus according to claim 9, wherein:

the adjustment means is disposed on the imaging element unit side.

11. An endoscope imaging apparatus according to claim 9, wherein:

the adjustment means is disposed on the imaging optical unit side.

12. An endoscope imaging apparatus according to claim 7, wherein:

the tubular member to which the bellows portion is formed is disposed to any one of the frame members constituting the imaging element unit or the imaging optical unit integrally therewith.

13. An endoscope imaging apparatus comprising:

an airtight imaging unit having a filter unit disposed between an imaging optical unit and an imaging element unit, wherein:

the filter unit is coupled by a tubular member including a bellows portion having an elastic force so as to be movable with respect to the imaging optical unit and the imaging element unit, respectively; and

the movable filter unit includes a plurality of openings or optical lenses disposed therein for transmitting light having passed through the imaging optical unit.

14. An endoscope imaging apparatus according to claim 13, further comprising:

adjustment pins for changeably disposing the openings or the optical lenses of the filter unit in a light path.

15. An endoscope imaging apparatus comprising:

an optical part moving mechanism for moving an imaging optical unit or an imaging element in an optical axis direction to thereby perform a focus adjustment or a zooming adjustment, wherein:

a tubular member having an elastic force is disposed in a part of a power transmission system for transmitting to the optical part moving mechanism; and

the power for moving the optical part moving mechanism originates from a rotary power source.